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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,035	10/17/2003	San C. Yuan	FA1138USNA	2179
23906	7590	11/18/2004		
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER RAJGURU, UMAKANT K	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,035

Applicant(s)

YUAN ET AL.

Examiner

Umakant K. Rajguru

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 28-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-27, drawn to a composition, classified in class 524, subclass 423.
 - II. Claims 28-30, drawn to a method for coating a substrate, classified in class 427, subclass 309.
 - III. Claims 31 7 32, drawn to a coated substrate, classified in class 428, subclass 447.

The inventions are distinct, each from the other because:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process as claimed can be practiced with another materially different product such as a solution of a resin in a solvent.

Inventions I and III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a material for adhering two substrates and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the

ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as spraying.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Attorney Steven C. Benjamin on September 21, 2004 a provisional election was made with traverse to prosecute the invention of I, claims 1-27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 28-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.


Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-15, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobias et al (US 4238583) in view of Iwato et al (US 4450200).

Tobias describes polyester resin compositions. Polyester is prepared from a diol such as 1, 6-hexanediol (col. 2, line 62) and dicarboxylic acid^{such} as phthalic acid (col. 2, 

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lines 18-19). The monomers are combined in such amounts to produce polyester with number average mol wt of 400-5000, a combined acid and hydroxyl value of 40-250 mgs KOH/g of polyester and a glass transition temp of -15°C to $+25^{\circ}\text{C}$ (col. 1, lines 39-46, 56-62). A crosslinking agent is used. One such agent is melamine-aldehyde resin (col. 3, lines 57-65). Acid catalysts are also used (col. 4, lines 11-22).

Tobias is silent about barium sulfate.

Iwato describes a composition, forming coated films having excellent resistance to chipping, containing polyester, aminoplast resin, talc and barium sulfate (abstract).

It would have been obvious to include in composition of Tobias, barium sulfate for imparting stabilization of other dispersed pigments, fillers to ensure uniformity in the film produced and to enhance resistance to chipping. It would also have been obvious to use more than one polyesters in the composition of Tobias with different glass transition temps in order to derive the benefits of combining properties of soft polymer and hard polymer.

5. Claims 16, 17, 18, 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobias et al as (US 423883) in view of Iwato et al (US 4450200) as applied to claim 1 above, and further in view of Scheibelhoffer et al (US 5549929) *WR*

Combination of Tobias & Iwato does not mention curing agent of instant claims 16 & 17, ~~as well as~~ flow modifying agent of instant claims 18-20, as well as stabilizers *WR* and UV light absorbers of instant claim 27.

Scheibelhoffer discloses a composition containing (a) polyester, which has hydroxy functionality, (b) crosslinkers, (c) crystalline reactive diluents, (d) plasticizers,

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(e) rheology modifiers etc (abstract). A suitable crosslinker is a blocked isocyanate (col. 6, lines 1-20). UV-absorbing agents and antioxidants are also incorporated (col. 10, lines 40-51).

It would have been obvious to use the crosslinkers of Scheibelhoffer in the composition of Tobias for achieving better crosslinking and thereby improved mechanical properties. It would also have been obvious to add (a) flow modifying agent in that composition for better flow property and (b) stabilizers for minimizing degradation of the composition, by light and heat.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tobias et al (US 4238583) in view of Iwato et al (US 4450200) as applied to claim 1 above, and further in view of Yuan (US 5468791).

Composition of Tobias and Iwato does not disclose zircoaluminate coupling agent.

Yuan discloses a primer composition containing, zircoaluminate ~~coupling~~ *coupling* UKR agents.

It would have been obvious to include said coupling agent in the composition of Tobias to improve adhesion due to enhanced bonding by coupling agent.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U. K. Rajguru whose telephone number is (571) 272-1077. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



U. Rajguru/af
November 12, 2004



James J. Seidleck
Supervisory Patent Examiner
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